SUNBRIGHT BATTERY

Sunbright Power Co.,LTD.

6-FM-7.5Ah Valve-regulated Lead Acid Battery Specification

We are an ISO9001 certified organization. And the products are approved by CE & UL. The nominal voltage of this series is 12V and 6V. And the capacityranges from 1.2Ah to 24Ah. Their typical applications include: emergency lighting systems, electricity power supply systems, communication systems, UPS systems, starting systems,solar systems etc.

Battery Construction

Component	Material
Positive plate	Lead dioxide
Negative plate	Lead
Container	ABS
Cover	ABS
Safety valve	Rubber
Terminal	Copper
Separator	AGM glass
Electrolyte	Sulfuric acid

General Features

Maintenance free
Convenient for installation
Safety and no leakage
Excellent recharge and discharge performance
Low self-discharge rate,charge each standby 6 months, temperature 25℃
Adapt to high or low temperature
Good deep discharge performance
Longer cycle life
UL approval

Performance Characteristics

1.Dimension and weight

Length	151mm
Width	65mm
Height	94mm
Total Height	98mm
Reference Weight	2.35kg

5.Charge Method: constant-voltage charging at 25℃（77° F）

Cyclic use	14.4～14.9V
Maximum charging current	2.25A
Temperature Compensation	-30mV/℃
Float Use	13.6～13.8V
Temperature Compensation	-20mV/℃

2.Functional Parameter

Rated Voltage	12V
Numbers of cells	6 Cells
Designed Life	3~5 Years

6.Environment Temperature Requirements

Discharge Temperature	-15～50℃
Charge Temperature	0～40℃
Storage Temperature	-15～40℃

3.Rated Capacity at 25℃（77° F）

20 hr rate（0.05C，10.8V）	7.5Ah
5 hr rate（0.165C，10.8V）	6.2Ah
1 hr rate（0.55C，10.5V）	4.43Ah

7.Inner Resistance&Max. Discharge Current

A fully charged battery at 25℃（77° F）	27mΩ
Max. Discharge Current	112.5A (5s)
Short Circuit Current	375A

4.Capacity affected by Temperature (20hour rate)

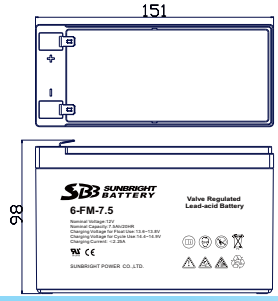
40 ℃ (104° F)	103%
25 ℃ (77° F)	100%
0 ℃ (32° F)	85%
-15℃ (5° F)	65%

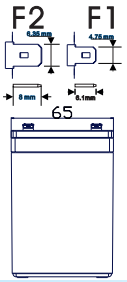
8.Self-discharge

3% Of the capacity per month at 25℃（77° F）

Capacity after 3 month storage	91%
Capacity after 6 month storage	82%
Capacity after 12 month storage	64%

Dimensions（mm）





3D Model Review

Constant-current discharge parameter Unit: A（25℃）

F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/cell	19.18	14.04	10.93	9.29	7.17	5.21	4.22	1.88	1.24	0.70	0.375
1.75V/cell	21.64	15.43	12.00	9.99	7.44	5.40	4.43	1.92	1.28	0.72	0.379
1.70V/cell	23.79	16.82	12.75	10.50	7.75	5.61	4.56	1.96	1.31	0.73	0.386
1.65V/cell	26.25	18.11	13.61	11.14	8.18	5.75	4.66	2.05	1.34	0.75	0.391
1.60V/cell	28.93	19.71	14.57	11.89	8.63	6.00	4.71	2.11	1.39	0.75	0.393

Constant-current discharge parameter Unit: W（25℃）

F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/cell	19.18	14.04	10.93	9.29	7.17	5.21	4.22	1.88	1.24	0.70	0.375
1.75V/cell	21.64	15.43	12.00	9.99	7.44	5.40	4.43	1.92	1.28	0.72	0.379
1.70V/cell	23.79	16.82	12.75	10.50	7.75	5.61	4.56	1.96	1.31	0.73	0.386
1.65V/cell	26.25	18.11	13.61	11.14	8.18	5.75	4.66	2.05	1.34	0.75	0.391
1.60V/cell	28.93	19.71	14.57	11.89	8.63	6.00	4.71	2.11	1.39	0.75	0.393

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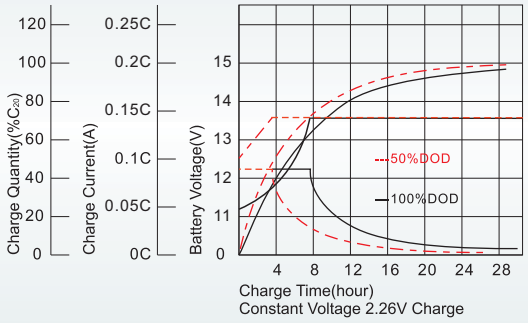
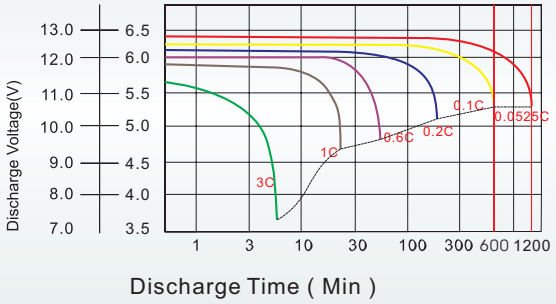
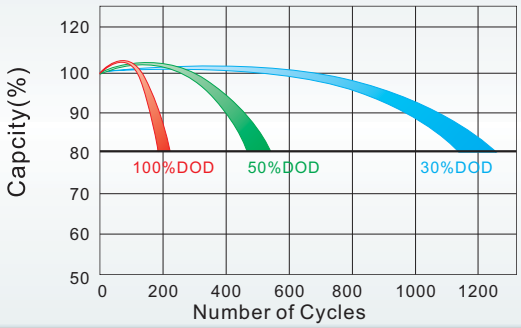
Charge Characteristics for Float Use @ 25°C/77°F



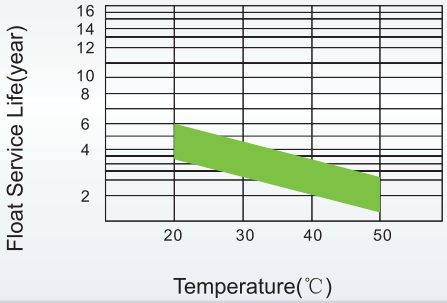
Discharge Characteristics at Various Rates @ 25°C/77°F



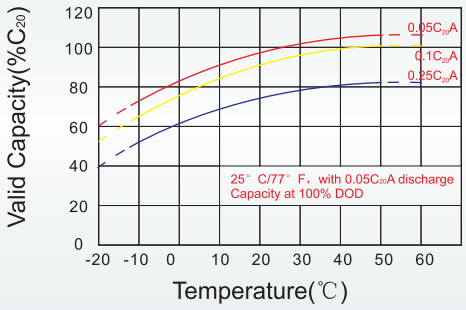
Cycle Life in Relation to Depth of Discharge



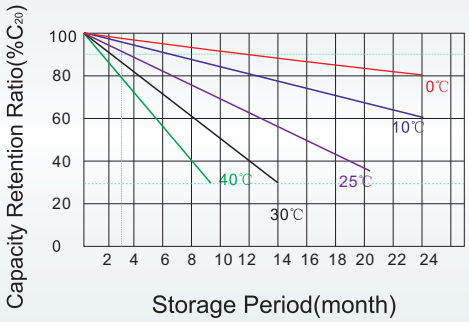
Float Service Life



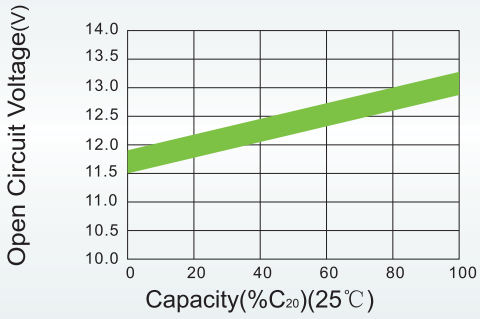
Temperature and Valid Capacity



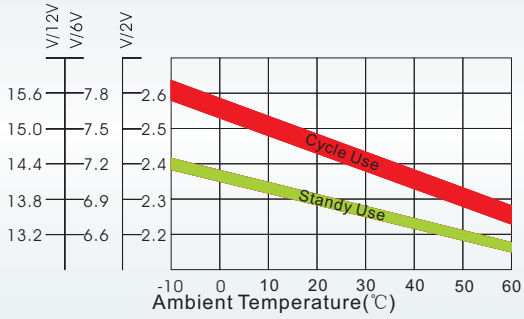
Self Discharge Charecteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature



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